2017 SnapPlus Frequently Asked Questions

Need SnapPlus Help?

If you have questions or problems using SnapPlus please check the website at snapplus.wisc.edu for answers about database management, soil test importing, SnapMaps, exchanging data with other people, and how to use certain features within the software. Check out the *How To* videos located under the *Support* menu items for tutorials on SnapPlus.

New Videos: https://www.youtube.com/channel/UCJflc0nu0lhN JA4wtzwQZA

- Exporting and Importing Field Info/ Farms/Subfarms
- How to Create an MS Excel Document Daily Log and Import it
 Undesign new houndaries in a field using new shapeful.
- Dismissing and Restoring a SWQMA in SnapMaps
- Updating new boundaries in a field using new shapefile
- Changing Field Labels in SnapMaps
- Making your Own Customized Map Using the Snipping Tool and MS Word

Contact these DATCP folks for your first level of software support. If necessary, they will forward the following information to the UW Soils team.

Sue Porter (608) 2244605, Sue.Porter@wi.gov

Stephanie Schneider (715) 8326547 ext. 113, Stephanie.Schneider@wi.gov

Mark Jenks (608) 2244507, Mark.Jenks@wi.gov

- 1. <u>Screenshot</u> of message received. Use the Microsoft Snipping Tool to take a screenshot of the pop up message or error present on the program. Save and attach to email.
- 2. Farm <u>Database</u>. As soon as you notice a problem in the program, send the farm database (snap.Db) through email.
- 3. <u>Syslog</u> Document. The Syslog will show errors and any warning you are receiving when experiencing problems with the program. To access go to Help on the menu bar and scroll down to View Syslog. Click all errors and select errors in the drop down labeled error level. The errors that are present will be narrowed down. Click Save and then attach the document to an email to our address.

PI (Phosphorus index) support: Laura Good, 608-262-9894, lwgood@wisc.edu Technical UW Soils team support email: support@snapplus.wisc.edu

Soil Survey Issues and NRCS Technical Services

Q: How do I get help with technical soil services?

A: Contact your local NRCS District Conservationist and they can direct you to the regional or state soil scientists. The Technical Soil Services branch of NRCS provides free assistance to partner agencies for application of soils information, and the general public. We support conservation planning through compliance determinations and reviews both HEL and wetlands.

Tillage

Q: If the farmer fall injects manure and spring cultivates or uses "no-till" for planting, then which tillage should be selected?

A: Select the tillage practice used, spring cultivation or no-till. SnapPlus will add the additional tillage from the manure application when calculating soil loss. SnapPlus allows selecting injection of manure and "no-till" for planting. Your calculated soil loss will be higher than with surface applied manure applications.

Q: If a grower disks a field in the fall, then field cultivates in the spring, what tillage choice do I select?

A: It is a two pass system; so you use fall chisel no disk. The equipment is less important than the number of times the soil is disturbed. Here is a link to more information. https://snapplus.wisc.edu/planning/matching-snapplus-tillages/

Q: How best do planners calculate soil loss for organic and multi-vegetable fields?

A: In response to requests from small-scale vegetable growers, a new crop selection called "Diversified vegetables" has been added to the SnapPlus crop list. This will help these small growers do a nutrient management plan so they can get their Farmland Preservation tax credits. SnapPlus uses the A2809 truck crop recommendations and has three tillage options: tilled, tilled with plastic mulch, and tilled with organic mulch.

Entering nutrient rates for biosolids, wastewater, and organic by-products

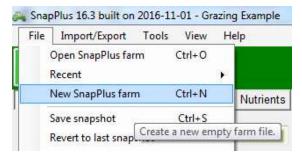
Q: How do I enter Biosolid or Organic by-product analysis if the lab report does not have the "% of dry matter" units required in the SnapPlus analysis entry box?

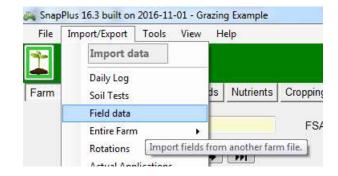
A: If you have an analysis for an organic amendment that does not report the nutrient contents as "% of solids" units, you will need to convert the results to these units using the reported solids content. Sometimes a wastewater-type analysis does not include any measurement of the solids content and, in those cases, you cannot use the SnapPlus analysis entry boxes. You can still calculate the lbs./1000 gallons of N, P2O5, and K2O, however, as long as concentrations are given for these nutrients. Instructions for converting various types of lab reports can be found on the SnapPlus website under Planning Information.

Copy fields to another database

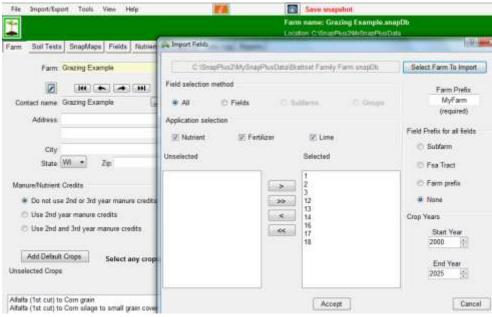
Q: How can planners provide a copy of a database to a landowner without giving a bunch of data unrelated to his farm?

A: The fastest way would be to:





- 1. Make a New database for the landowner.
- 2. Select Import/Export from the tool bar and Import data, Field data. A browser will pop-up to select the main database to copy from.



3. Select the fields and information you want in your new database and Accept.

Field Numbering

Q: Why will some fields not order themselves 01, 02, 03...in the Cropping and Field screens? Does it have something to do with how long the name is?

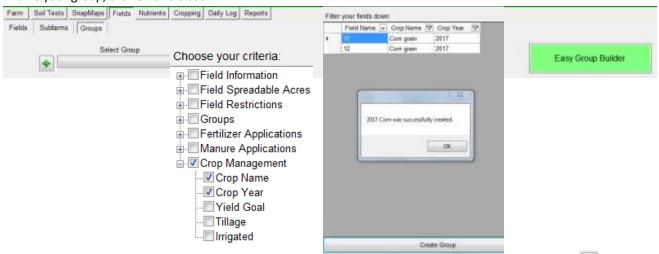
A: Yes, SnapPlus17 has fixed the field name limitation by treating names that are more than ten characters differently, if they start with a number followed by a space or a dash.

Field Groups

Q: How can I make a group of all my corn fields?

A: You have at least two options on how you can group fields in SnapPlus.

1. Select the subtab Groups under the Field screen and click on the **Easy Group Builder**. 2. Select Crop Management, Crop Name, and Crop Year. Then select search. SnapPlus will show you a list of all fields, crops, and years. Filter the Crop Name column to narrow your list to corn and the Crop Year to 2017 for this example. Select "Create Group". Name your group, click OK and close.



2. Another way to make a group is to select the subtab Groups under the Field screen. Click on the green sign and name the group something like "2017 Corn". Select the 2017 corn fields and send them over to the selected side to make a group.

Nutrient Recommendations and Applications

Q: Does the 2015-590 standard change N and P recommendations?

A: No, the 2015-590 standard continues to follow the same recommendations. The WI Phosphorus Index (PI) and Soil Test P standards apply to manure applications. These P assessments do not apply to fields with only fertilizer applications.

If fields receive manure or organic by-products over the crop rotation, up to 8 years, follow the PI or Soil Test P strategy for all the fields on the farm. Both these options are limited by the annual N in the manure so the applications are not endless. The P Index option allows applications of manure P up to the N recommendation as long as the rotational P Index is not exceeded.

If a field only uses fertilizer over the crop rotation, up to 8 years, then the N, P, and K recommendations follow A2809. According to 590, several crop years' worth of fertilizer P can be applied in one year if needed to meet A2809. Only for corn will 23 lbs. of P2O5 be allowed above the zero recommendation because starter fertilizer could increase production. Go to https://datcp.wi.gov/Pages/Programs Services/NMPlanning.aspx to download a copy of UWEX Pub. A2809.

Q: How can all nutrient applications be accounted for and farm nutrients credited to the upcoming crop year?

A: A plan is updated annually with actual crops, tillage, yields, nutrient source, rates, timing, and methods used. It accounts for all application of N-P-K, regardless of source to meet crop needs. Plans must include future and past crop years of the crop rotation to show the farm has adequate acres to allocate the manure. After a crop is harvested, any nutrient applications are feeding the next year's crop.

Importing field soil test from a WI DATCP certified soil testing laboratory into SnapPlus allows planners to see the crop's nutrient recommendation adjusted each year based on previous applications.

SnapMaps

Q: Can I bring the FSA maps shapefiles into SnapMaps or do I have to draw them out?

A: Shape files can be imported by selecting Drawing tools. However, it might be easiest to draw the fields in SnapMaps by clicking **Draw a Feature**, sliding to the right, and clicking on either **Field** to draw the shape or use the second option, **Field with Common Land Unit** (CLU), to pull in the 2008 field boundaries. When CLU boundaries are orange, you can change their shape by

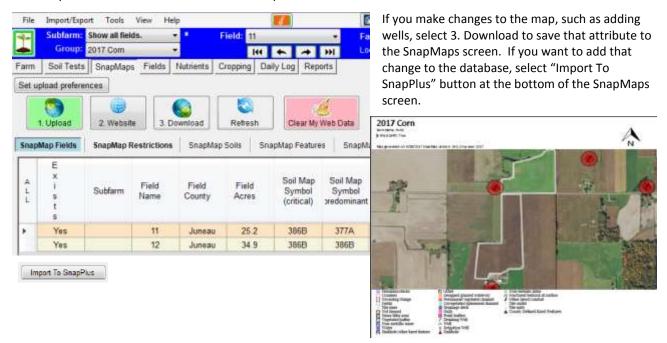


clicking on the line to move them or to delete a point in the line. You can also edit orange boundaries within Edit features.

FSA requires written farmer permission to release FSA shapefiles and you will need to pull in the correct layer when you get the file. If you choose to get the files from FSA we have a release form here, https://datcp.wi.gov/Documents/NMSoilTestResultRelease%20Form.pdf. It also contains an agronomist release for soil test results.

Q: How can I make a map of a group of fields, not all of them?

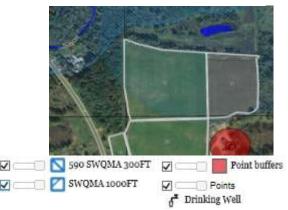
A: Make a group of the fields you want and only upload that group. After the group of fields is made, select SnapMaps then 1. Upload. Select 2.Website to view the maps.



Q: How can I make maps with better titles and smaller legends with only what is relevant?

A: Open a Word or PowerPoint file. Add your title. Use the Microsoft Snipping Tool to make a picture of anything you see on your computer or SnapMaps screen and paste it into the open Word or PowerPoint file. To get the Snipping Tool, click on the Microsoft start flag and type the tool name in the search box. Make one legend and get multiple fields on one page regardless of their proximity to each other.

Slope and Distance to Water



Q: How does SnapMaps determine the slope and distance to water?

A: SnapMaps is calculating from the center of the field all the way to perennial water to determine slope and distance. The table below shows that small differences in these measurements do not reduce the Phosphorus Index; so perfection is not a necessity. See below for more about this calculation.

SnapA	lap Fields	SnapMap Restric	tions Snapl	Map Soils Sea	pMap Features	SnapMap Ac	res						
411	E × · · · · · · · · · · · · · · · · · ·	Subfarm	Field Name	Field County	Field Acres	Soil Map Symbol (critical)	Soil Map Symbol (predominant)	Slope	Slope Length	Below Field Stope To Water	Distance To Parannial Water	Notes	Field Borders
	Yes		08	Columbia	8.1	BpC2	BpB	9	150	0 - 2	301 - 1000		MULTIPOLY.
100	Yes		09	Columbia	15.2	BpC2	BpB	9	150	0 - 2	381 - 1000		MULTIPOLY.
	Yes		10	Columbia	1.6	EpC2	BpC2	9	150	0 - 2	1001 - 5000		MULTIPOLY.
	Yes		11	Columbia	7	OmD2	OmC2	16	100	0 - 2	301 - 1000		MULTIPOLY.
	Yes		12	Columbia	9.4	BpC2	BpB	9	150	0 - 2	301 - 1000		MULTIPOLY.
	Yes		13	Columbia	5.8	OmC2	OmC2	9	150	0-2	301 - 1000		MULTIPOLY

WI P Index: Total P Delivery Ratio

In the WPI, phosphorus delivery is estimated to the edge of the field as particulate or dissolved P and then these losses are multiplied by the appropriate total P delivery factor for the length and slope of the flow path from the field to a perennial stream or lake.

The table of total P delivery factors used in the WPI is shown below. The slope classes are designed to match with soil mapping unit names, so the predominate slope between the field and the stream can easily be picked off a soil map. As you can see, the categories for distance to stream are very broad and therefore also easily estimated from a soil map. The slope and length of the flow path from the field to the nearest surface water is the only "extra" information the P Index uses in Snap-Plus beyond what is required for regular nutrient management planning and conservation planning.

Pull-down menu options for Snap-Plus								
Dominant slope	Distance from stream	TP delivery factor						
0-2%	0- 300 ft	1						
	300 -1,000 ft.	0.95						
	1,001-5,000 ft	0.87						
	5,001 -10, 000 ft	0.72						
	10,001 - 20,000 ft.	0.55						
	> 20,000 ft.	0.45						
2-6%	0- 300 ft	1						
	300 -1,000 ft.	0.96						
	1,001-5,000 ft	0.91						
	5,001-10, 000 ft	0.79						
	10,001 - 20,000 ft.	0.65						
	> 20,000 ft.	0.56						
6-12%	0- 300 ft	1						
	300 -1,000 ft.	0.98						
	1,001-5,000 ft	0.92						
	5,001-10, 000 ft	0.81						
	10,001 - 20,000 ft.	0.69						
	> 20,000 ft.	0.61						
> 12%	0- 300 ft	1						
	300 -1,000 ft.	0.98						
	1,001-5,000 ft	0.93						
	5,001-10, 000 ft	0.83						
	10,001 - 20,000 ft.	0.71						
	> 20,000 ft.	0.64						

This table is based on modeling work conducted using APEX (ARS Temple, TX) and P8 (W.W. Walker). The delivery modeling assumed a drainage system comprised of a field drained via a trapezoidal grassed waterway to a receiving stream. The channel transport routines within P8 and APEX were used to evaluate the potential of fine (< 50 μm) particles to settle during transport. Various channel slope and length conditions were evaluated using continuous daily simulation. Model output was then fit using regression analysis to develop a set of equations for use in the WPI. A 20-year modeling time period was used to better account for temporal variability. The edge-offield particle size and P distribution by particle size used in the modeling analysis were those monitored for corn productions systems in Dane County (Panuska, 2006).

The total P delivery ratio does not distinguish between the forms of P delivered. It is applied equally to the dissolved and particulate P transported from the field. Note that on the Snap-Plus cropping screen where details are provided about the WPI components, each of the component indices has already been adjusted independently using the total P delivery ratio.

Rotation Wizard

Q: If the farmer changed the planned crop of corn to soybeans on some fields, is there a short-cut for updating the databases?

A: Select Tools on the top tool bar. Select Rotation Wizard second button "Change existing crop data or applications for fields", then next. Select **Cropping** data. Select the 2017 year to start and make changes through. Select the 2017 Soybean group. Select the fields. Select next. Select what the crop is in the plan, corn, and what you are changing the cropping data to, soybeans. Add your yield and tillage. Select next, then Apply and Exit. All the corn fields in your group

should be changed to soybeans.







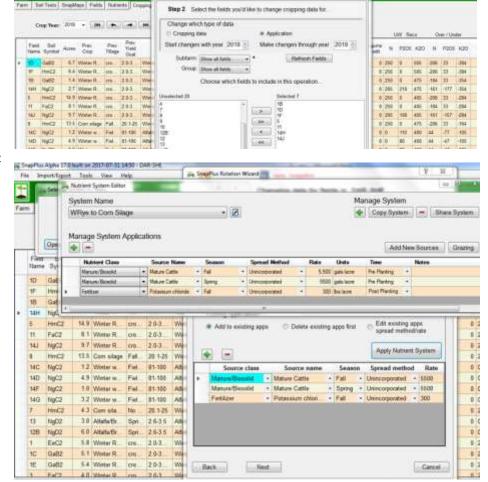
Q: What is an easy way to add nutrient applications to selected fields without making groups?

A: Select the Cropping Grid by clicking on the trifoliate in the top left. Click headers to sort, in this case fields needing the most K. In the tool bar, click on the Rotation Wizard. Again, in Step 1 select the second button "Change existing crop data or applications for fields".

Select next and go to Step 2. Select **Application** data. Select the year to start and make changes through. Arrow the fields needing more K to the selected box to the right.

Select next and go to Step 3. Select "Add to existing apps" and the green plus sign to add any nutrient source already in your database.

Alternatively, use the **Nutrient System Editor**. From here or in the Nutrient screen multiple nutrient sources can be combined as a single system.
To use with the Rotation
Wizard, select "Apply Nutrient System" you have previously made. Select next to add those nutrient to fields.



CAFO

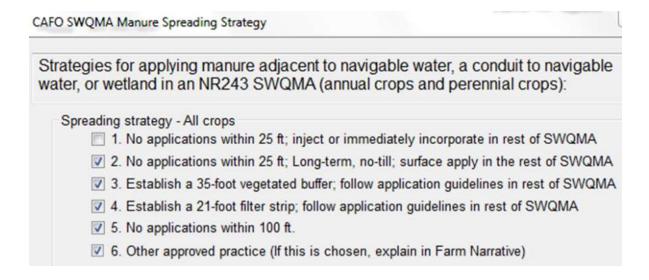
Q: For CAFOs with W soils, how can planners reduce the flags for fields on the NM2 Compliance Check report when the fields have been verified that the water table is lower than 24"?

A: Select the Restriction Features cell on the Field screen for each field and check the acknowledgement shown below. This only needs to be done once. This acknowledgement will stay until it is removed by the planner.



Q: Are CAFO manure applications always required to be injected or incorporated by law?

A: No, CAFOs are allowed to surface apply manure as long as all SWQMA application restriction requirements are met under NR 243.14(4), Wis. Adm. Code. When surface applications are allowed under NR 243.14(4) the application rate is limited to a maximum of 5,000-10,000 gallons per acre (dependent on surface texture class) within the SWQMA and up to the nutrient demand of the crop in the remainder of the field. Surface applications of manure may not occur when precipitation capable of producing runoff is forecasted within 24 hours of the planned application and must be done in a manner where the land applied manure is retained on the soil where they are applied with minimal movement. CAFOs can use surface applications and no-till as part of any cropping system to meet tolerable soil loss and the WI Phosphorus Index.



Q: Is DNR requiring us to mark all road ditches as flow channels for spreading setbacks?

A: If the road ditch is considered a conduit to navigable water, it's subject to a SWQMA and the selected setback. With fields ≤6% slope NR 243 also mandates a 200 foot winter spreading setback from concentrated flow, buffers, and wetlands.

Q: Is DNR asking for 100ths for manure nutrient values?

A: DNR is not requiring this kind of precision from farms. It is unlikely to be achieved with manure or even with fertilizer.

Pasture Applications

Q: How do I add grazing to the SnapPlus NM plan?

A: Pastures need to be part of the NM plan whether they are grazed during the grazing season, gleaned in the winter, or if nutrients are mechanically applied. In two cases listed below we can estimate the soil test values.

Soil testing requirements are in the 2015-590 NM Checklist item 1. b.

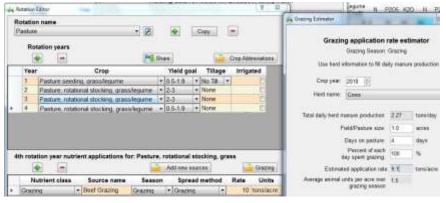
For fields or pastures with mechanical nutrient applications, determine field nutrient levels from soil samples collected within the last 4 years according to 590 Standard (590) and UWEX Pub. A2809, Nutrient Application Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin (A2809) typically collecting 1 sample per 5 acres of 10 cores. Soil tests are not required on pastures that do not receive mechanical applications of nutrients if either of the following applies:

- 1. The pasture average stocking rate is one animal unit per acre or less at all times during the grazing season.
- 2. The pasture is winter grazed or stocked at an average stocking rate of more than one animal unit per acre during the grazing season, and a nutrient management plan for the pasture complies with 590 using an assumed soil test phosphorus level of 150 PPM and organic matter content of 6%.
 - Step 1. Pick from the pasture crop options on the Farm screen to get the correct pasture plant mix and seeding option.
 - Step 2. Add a grazing source to the Nutrient sources screen. For this example we are using Beef Grazing.
 - Step 3. In the sub tab of the Nutrient sources screen, click on Grazing Herd Setup and enter the number of head for each size of animal you have.
 - Step 4. For grazing operations we can estimate a rate per acre for the farm. If you have 900 tons of manure being produced annually and you divide by the 90 acres of pasture you have, then you are aiming for 10 tons per acre as a rate. [900 tons÷90 acre=10 tons/ac]

Pasture seeding, grass/legume
Pasture seeding, grass
Pasture seeding, legume more than 30%
Pasture, continuous stocking, high density
Pasture, continuous stocking, low density
Pasture, dry lot, exercise area
Pasture, rotational stocking, grass/legume
Pasture, rotational stocking, grass
Pasture, rotational stocking, legume more than 30%
Pasture, variable stocking, managed continuous, grass/l
Pasture, variable stocking, managed continuous, legume
Pasture, variable stocking, managed continuous

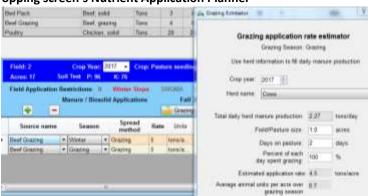
- Step 5. Use the Grazing button in the Nutrient Application Planner for the field to calculate how many days the herd needs to be on the pasture or in this case, how long on one acre to give us 5 and 10 tons/acre rate. Adjust the days on pasture and the percent of each day spent grazing to determine the tons/acre rate.
- Step 6. Add grazing applications to fields from the Cropping screen or use the Rotation Wizard.

Rotation Wizard's 1st button "Add crop and application data to fields" for each year of the crop rotation





Cropping screen's Nutrient Application Planner



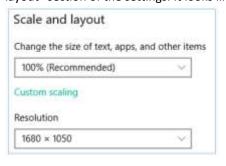
Screen Resolution issues

Q: How do I fix SnapPlus when the fonts shrink or enlarge and the resolution changes?

A: Users might notice strange display behavior in Windows 8 or 10, more frequently in Windows 10. We've heard reports of screens spontaneously minimizing when users try to interact with the grids, or screens looking totally "broken" and getting worse when scrolling. We've yet to come up with a comprehensive solution to Windows resizing the SnapPlus display. But here is how to work around it. It's the "Scale and layout" section that we'll need to work with. Computers and laptops get increasingly better resolution and higher pixel density, or high-dpi. Devices may either have really high resolutions, a "Recommended" scale of something greater than 100%, or both. The object of the game is to get the computer to stop really trying to resize SnapPlus. Search for "Change Display Settings".

Option 1: Go through the resolution

1. Make a note of what the settings are in the "Scale and layout" section of the settings. It looks like this:



e this:

2. Set the scale of "text, apps, and other items" to 100%, if it's not there already. That's the part that looks like the below picture. In some computers that have not received the latest updates, you might see a horizontal sliding bar rather than a dropdown menu.

Display

Night light

Off

Resolution

Orientation

- On

100% (Recommended)

1680 = 1050

Scale and layout

100% (Recoinmended)

Brightness and color

Dunge trightness substitutionly when lighting changes

Change the size of text, apos, and other items

Change the size of text, apps, and other items

3. If your scale was already at 100%, skip this step. Otherwise, sign out and back into your

Settings

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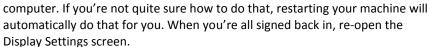
C About

Froiecting to this PC

X Shared experiences

Notifications & actions

C Rower & sleep



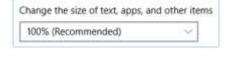
4. Lower the resolution of your computer. Play with the settings until you find something that you can work with and that works for the program. This option will likely take some trial and error. The part of the screen you'll want to focus on is the one that looks like this:



5. Do your work in SnapPlus. It should scale and function appropriately. When you're finished with SnapPlus, you can re-open the Display Settings screen and set your settings back to what they were and continue to use your computer as you normally would.

Option 2: Go through scaling

1. Make a note of the setting for your "text, apps, and other items". That's the part of the Display Settings that looks like this, or you might see a horizontal sliding bar rather than a dropdown menu if your computer hasn't received the latest updates.



- 2. If your setting is 100%, skip this step. Otherwise, set the scale of "text, apps, and other items" to 100%. Sign out and back into your computer. If you're not quite sure how to do that, restarting your machine will automatically do that for you.
- 3. Re-open the Display Settings screen and set the scale of the "text, apps, and other items" to something that works for you. If your setting in step 1 was something other than 100%, I'd recommend starting with that. DO NOT SIGN OUT OF YOUR COMPUTER BEFORE USING SNAPPLUS. It's the signing out and back in that seems to create the issue.
- 4. Do your work in SnapPlus. It should scale and function appropriately. When you're finished with SnapPlus, you can sign out and back into your computer as usual. If you've accidentally signed out and back in, just repeat these instructions from step 1.

Proposed NR 151 Targeted Performance Standard Information

Search - "NR 151 draft rule" available now

- The revision relates to proposed standards for 15 counties in eastern WI and manure application restrictions where Silurian Dolomite is present. http://dnr.wi.gov/news/input/documents/rules/WT1516DraftRule.pdf
- Manure spreading prohibitions on shallowest Silurian bedrock soils
- Manure application rate, timing, and advanced treatment requirements on Silurian bedrock soils

NR 151.015(17) "Silurian bedrock" means the area in Wisconsin where the bedrock consists of Silurian dolomite or is part of the Maquoketa Formation overlain by soils of 20 feet or less. This area comprises portions of the following counties: Brown, Calumet, Dodge, Door, Fond du Lac, Kenosha, Kewaunee, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Walworth, Washington and Waukesha. Areas where Silurian bedrock occurs in Wisconsin can be identified by the most current NRCS, WGNHS, or county maps and infield bedrock verification methods.

- Public hearing likely <u>Sept. 15</u> Green Bay with Skype locations in Madison (DNR, GEF2 room 090) comments accepted until Oct. 4.
- CAFOs will have to comply with new standards immediately
- Understand how these changes will affect you and your customers
- Review the rule and provide suggestions/comments to DNR and <u>be specific!</u>